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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CERVETTI, DAVID GARCIA

ART UNIT PAPER NUMBER

2136

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/005,713

Applicant(s)

ITOH ET AL.

Examiner

David G. Cervetti

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 210 (page 15, line 13, perhaps 201 was intended). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 203, 207 (Fig. 1), 336 (Fig. 8). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either

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"Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 7-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Solomon (US Patent Number: 6,269,409).

Regarding claim 1, Solomon teaches a tamper-resistant computer system having a CPU and a main memory for executing application software, comprising (column 3, lines 5-33): a first operating system (column 3, lines 47-50, 44-65); and a second operating system (column 3, lines 57-59, 44-65); wherein the application software comprises a first component program executed by the first operating system, and a second component program executed by the second operating system (column 4, lines 33-57), wherein the first component program has a user interface for receiving an operational instruction from a user of the computer system and for issuing a command to the second component program, and wherein the second component program

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performs the command issued by the first component program if execution thereof has been designated as permitted in advance, thereby preventing the second component program from being accessed by the user (column 5, lines 5-43).

Regarding claim 2, Solomon teaches a communication control program that sends a command issued by the first component program to the second component program if execution thereof is permitted (column 5, lines 21-33).

Regarding claim 3, Solomon teaches a multi-OS control program for controlling the first and second operating systems (column 3, lines 55-60); wherein the multi-OS control program establishes a particular region in a memory area managed by the first operating system (column 5, lines 10-15) so that the particular region can be referred to by the communication control program, wherein the user interface of the first component program writes the command into the particular region for issuance thereof (column 5, lines 10-15), and wherein, by referring to the particular region, the communication control program reads a command stored in the particular region by the first component program (column 5, lines 21-33), and then, by making reference to a list of the permitted commands held in a memory area managed by the second operating system, the communication control program sends the command to the second component program if the command is in the list (column 5, lines 21-33).

Regarding claim 7, Solomon teaches wherein, at start of the second component program, the second component program adds a command permitted for the first component program to the list of permitted commands (column 5, lines 20-33), and wherein, at the time of termination of the second component program, the second

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component program removes the command from the list of permitted commands (column 5, lines 34-37) (column 5, lines 5-43).

Regarding claim 8, Solomon teaches wherein the second component program comprises a command processing program for command execution (column 4, lines 45-57), and a communication control program through which a command issued by the first component program is sent to the command processing program if execution thereof is permitted (column 4, lines 58-67).

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Herbert et al. (US Patent Number: 5,757,919).

Regarding claim 9, Herbert et al. teach providing an installation program for system software which includes an installation start program, a cryptographic system file, and a digital signature (column 4, lines 7-15), and wherein the installation start program includes a function for extracting a decryption key for the cryptographic system file from the hardware module and a function for decrypting the cryptographic system file with the decryption key extracted from the hardware module (column 4, lines 16-42); and executing the installation start program (column 4, lines 13-20); and decrypting the cryptographic system file.

Regarding claim 11, Herbert et al. teach wherein the installation program for the application software includes a digital signature, and a step is performed of checking the digital signature before writing the first and second component programs into the memory areas (column 4, lines 7-42).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Solomon as applied to claim 3 above, and further in view of Toda (US PG Publication Number: 2002/0029301).

Regarding claim 4, Solomon does not disclose a including a tamper-resistant hardware module for storing a system boot program; wherein the tamper-resistant computer system includes an initial program for reading the system boot program at system startup, wherein the system boot program includes a function for executing the multi-OS control program, and wherein the multi-OS control program includes a function for executing the first and second operating systems. Toda teaches including a tamper-resistant hardware module for storing a system boot program (page 2, column 2, paragraphs 40-42); wherein the tamper-resistant computer system includes an initial program for reading the system boot program at system startup (page 3, column 1, paragraph 49), wherein the system boot program includes a function for executing the multi-OS control program, and wherein the multi-OS control program includes a function for executing the first and second operating systems (page 3, column 2, paragraphs 51-53). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a control program (loader) that executes the first

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and second operating systems. One of ordinary skill in the art would have been motivated to perform such a modification to allow two distinct operating systems to operate at the same time and independently of each other (Toda, page 1, paragraphs 2 and 14-16).

9. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Solomon and Toda as applied to claim 4 above, and further in view of Herbert et al.

Regarding claim 5, the combination of Solomon and Toda teaches wherein the second component program comprises a system boot program (page 3, column 1, paragraph 49). Solomon and Toda do not disclose wherein the second component program comprises cryptographic software, and digital signature, wherein the hardware module includes a decryption key for the cryptographic software and a function for authenticating the system boot program, wherein the system boot program includes a function for performing authentication for the hardware module, a function for extracting the decryption key for the cryptographic software from the hardware module, and a function for decrypting the cryptographic software with the decryption key extracted from the hardware module, and wherein, according to a command from the first component program, the system boot program is executed, and in response the cryptographic software is decrypted and executed. Herbert et al. teach wherein the second component program comprises cryptographic software (column 4, lines 7-15), and digital signature (column 4, lines 7-15), wherein the hardware module includes a decryption key for the cryptographic software (column 4, lines 16-42) and a function for authenticating the system boot program, wherein the system boot program includes a function for

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performing authentication for the hardware module, a function for extracting the decryption key for the cryptographic software from the hardware module (column 5, lines 1-25), and a function for decrypting the cryptographic software with the decryption key extracted from the hardware module (column 5, lines 1-25), and wherein, according to a command from the first component program, the system boot program is executed, and in response the cryptographic software is decrypted and executed. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use cryptography and authenticate the boot program. One of ordinary skill in the art would have been motivated to perform such a modification to maintain integrity and confidentiality (Herbert et al., Abstract, lines 1-5).

Regarding claim 6, the combination of Solomon, Toda, and Herbert et al. teaches the limitations as set forth under claim 5 above. Furthermore, Herbert et al. teach wherein the hardware module further includes a decryption key for cryptographic data to be used by the second component program, and wherein the second component decrypts the cryptographic data (column 4, lines 16-42).

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Herbert et al. as applied to claim 9 above, and further in view of Dickey (US Patent Number: 5,881,236).

Regarding claim 10, Herbert et al. teach providing an installation program for application software which installation program includes a first installation program executed by a first operating system (column 4, lines 7-15). Herbert et al. do not disclose a second installation program executed by a second operating system; wherein

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the first installation program includes a function for writing a first component program into a memory area managed by the first operating system and a function for calling the second installation program, wherein the second installation program has a function for writing the second component program into a memory area managed by the second operating system; executing the first installation program; calling the second installation program; and executing the second installation program. However, Dickey teaches wherein the method further comprises: a second installation program executed by a second operating system (column 5, lines 34-54); wherein the first installation program includes a function for writing a first component program into a memory area managed by the first operating system and a function for calling the second installation program, wherein the second installation program has a function for writing the second component program into a memory area managed by the second operating system (column 5, lines 34-54); executing the first installation program (column 5, lines 34-54); calling the second installation program (column 5, lines 34-54); and executing the second installation program (column 5, lines 34-54). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to cause installation of an application program on one operating system from another operating system. One of ordinary skill in the art would have been motivated to do so to reduce the time spent on installing software on multiple machines (Dickey, column 1, lines 45-59).

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David G. Cervetti whose telephone number is (571) 272-5861. The examiner can normally be reached on Monday-Friday 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DGC


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